**Before the**
**NEBRASKA PUBLIC SERVICE COMMISSION**
**Lincoln, NE 68508**

| | | |
|---|---|---|
| In the Matter of the Nebraska Public Service Commission, on its Own Motion, to investigate ways to accelerate the deployment of broadband consistent with Section 706 of the Telecommunications Act of 1996. | ) | Application No. C-4807-/PI-202 |

To: The Commission

**COMMENTS OF PCIA – THE WIRELESS INFRASTRUCTURE ASSOCIATION**

PCIA – The Wireless Infrastructure Association ("PCIA") hereby submits these comments in response to the Nebraska Public Service Commission's ("PSC" or "Commission") motion to investigate ways to accelerate the deployment of broadband consistent with Section 706 of the Telecommunications Act of 1996, entered on December 15, 2015.[1] In this docket, the Commission looks to "develop ways to remove obstacles and create best practices to promote efficiencies required for an aggressive broadband deployment plan."[2] PCIA commends the Commission for its proactive approach to aid in improving the deployment of broadband in Nebraska. Though state law prohibits the Commission from regulating wireless services,[3] PCIA offers the following comments to highlight areas where the Commission can support policies that will help expand the growth of broadband in the state.

[1] *In the Matter of the Nebraska Public Service Commission, on its Own Motion, to investigate ways to accelerate the deployment of broadband consistent with Section 706 of the Telecommunications Act of 1996* at 1, *Order Opening Docket and Setting Workshop*, Application No. C-4807/PI-202 (Dec. 15, 2015) ("*Order*"). *See also* 47 U.S.C. § 1302 (a), Pub. L. No. 104-104, § 706, 110 Stat. 56, 153 (1996), as amended in relevant part by the Broadband Data Improvement Act, Pub. L. No. 110-385, 122 Stat. 4096 (2008).

[2] *Order* at 1.

[3] *See* NEB. REV. STAT. § 86-124.

## I. Introduction and Background

PCIA is the principal industry organization representing companies that build, design, own, and manage wireless communications facilities throughout the world. PCIA's members include wireless carriers, telecommunications infrastructure providers, and professional service firms that string fiber, build communications towers, and deploy advanced wireless facilities. PCIA's members have played a significant role in the unprecedented growth and development of the wireless communications market.

Investment in wireless infrastructure plays a critical role in the efficient and increased deployment of broadband. This investment yields dividends for the economy as a whole, creating jobs, powering economic growth, and enabling innovation in both the established technology sector and other burgeoning sectors, such as the mobile application sector. Investment in wireless infrastructure helps provide better service for residents and business and provides additional jobs related to deployment; moreover, this investment powers indirect benefits, like improving workplace efficiency, enabling distance learning and telework, and providing a platform for new technology-enabled businesses.[4]

As consumer demand continues to grow, wireless broadband service and infrastructure providers have seen a marked increase in subscription levels, as well as consumers' desire for faster speeds, and have made concomitant capital investments in response. In particular, PCIA members are adding capacity to and expanding coverage of existing networks using advanced distributed antenna systems ("DAS") and small cell networks. These networks, which are primarily comprised of a fiber backbone that delivers traffic to and from small nodes, utilize

[4] *See* ALAN PEARCE ET AL., WIRELESS BROADBAND INFRASTRUCTURE: A CATALYST FOR GDP AND JOB GROWTH 2013-2017 (2013), *available at* http://www.pcia.com/images/IAE_Infrastructure_andEconomy2.PDF.

existing utility poles in public rights-of-way to support the fiber and node attachments underpinning the DAS. The nodes are comprised of antennas and associated electronic equipment that convert radiofrequency to optical signals (allowing traffic to be transported over the fiber network to a designated point where it is handed off and/or interconnected with the public switched network). As providers continue to employ these technologies more and more to densify mobile wireless networks, states and localities should endeavor to improve the process to site broadband facilities in rights-of-way.

In the Order, the Commission asks various stakeholders to comment on current challenges in the deployment of broadband in Nebraska and to posit potential solutions to these challenges. PCIA would like to note some deployment challenges faced by its members and highlight opportunities that remain for Nebraska to address obstacles encountered by wireless providers attempting to enhance and extend mobile broadband service. The Commission can assist in alleviating some challenges, particularly by remaining cognizant of federal deployment policy initiatives and supporting further action by the Nebraska Legislature to streamline broadband infrastructure deployment.

## II. Consumer demand for, and the numerous benefits realized from, mobile broadband service continue to increase.

Nebraska's citizens and businesses depend on wireless broadband for both data and voice needs. Investment in infrastructure and competition among providers has powered a shift from landline communications to mobile platforms. Consumers increasingly rely on wireless service as their exclusive means of voice communication, with nearly half of American homes relying solely on wireless during the first half of 2015, compared to just fewer than 16% in 2006.[5] Cord-

[5] *Compare Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, January–June 2015*, CENTERS FOR DISEASE CONTROL NATIONAL HEALTH STATISTICS REPORTS 1 (2015), *available at* http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201512.pdf, *with Wireless Substitution: Early Release of*

cutting rates are similar in Nebraska; in 2012, 37.5% of adults and 43.7% of children lived in wireless-only households.[6] Robust wireless infrastructure will continue to play an important role as consumers continue to "cut the cord" or, increasingly, grow up in households that never had a "cord."[7] Trends indicate that American consumers' wireless data demands will only continue to increase, driving a need for additional wireless infrastructure investment. In 2013, U.S. mobile data usage grew 120%,[8] and today, nearly two-thirds of Americans own bandwidth-hungry smartphones.[9] Mobile video will continue to be a key driver of growth in data consumption, with traffic expected to grow nearly nine-fold by 2019[10] as wireless carriers invest heavily in new and innovative offerings.[11] New spectrum, a necessary, but finite resource with extended lag time from purchase to deployment, cannot alone handle this surge in traffic; infrastructure providers and carriers must deploy new cell sites to deliver the increased capacity consumers demand.[12]

---

*Estimates from the National Health Interview Survey, July–December 2006*, CENTERS FOR DISEASE CONTROL NATIONAL HEALTH STATISTICS REPORTS 1 (May 14, 2007), *available at* http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless200705.pdf.

[6] *See Wireless Substitution: State-level Estimates from the National Health Interview Survey, 2012*, CENTERS FOR DISEASE CONTROL NATIONAL HEALTH STATISTICS REPORTS 6 (Dec. 18, 2013), *available at* http://www.cdc.gov/nchs/data/nhsr/nhsr070.pdf. This study contains the most recent state-level data available.

[7] *See, e.g.*, Ian King, *How 'Cord Never' Generation Poses Sales Drag for Pay TV*, BLOOMBERG BUSINESS (Sept. 13, 2013, 12:01 AM), http://www.bloomberg.com/news/articles/2013-09-18/how-cord-never-generation-poses-sales-drag-for-pay-tv.

[8] CISCO VISUAL NETWORKING INDEX: GLOBAL MOBILE DATA TRAFFIC FORECAST UPDATE, 2014–2019 4 (2015), *available at* http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white_paper_c11-520862.pdf.

[9] PEW RESEARCH CENTER, U.S. SMARTPHONE USE 2015 2 (2015), *available at* http://www.pewinternet.org/files/2015/03/PI_Smartphones_0401151.pdf.

[10] VNI Mobile Forecast Highlights, 2014 – 2019, CISCO, http://www.cisco.com/assets/sol/sp/vni/forecast_highlights_mobile/index.html (select "Filter by Country," then select "United States").

[11] *See, e.g.*, Mike Snider, *Verizon Completes AOL Acquisition, Readies Mobile Video Service*, (Jun. 23, 2015, 11:11 AM), http://www.usatoday.com/story/tech/2015/06/23/verizon-completes-aol-acquisition/29151975/ (describing Verizon's plans to launch a "mobile-first" video service).

[12] *See* Walter Piecyk, *Answering the Call for Capacity. Initiating Coverage on the Towers: AMT, CCI, SBAC*, BTIG (Jun. 17, 2015, 4:02 PM), http://www.btigresearch.com/2015/06/17/answering-the-call-for-capacity-initiating-coverage-on-the-towers-amt-cci-sbac/ ("BTIG Report") ("Spectrum alone will not be enough to handle the sustained growth of wireless data. There is a finite amount of spectrum . . . . [I]n general, wireless operators can deliver more capacity through additional cell sites.").

In addition to increased demands by consumers on smartphones, laptops, and tablets, the Internet of Things ("IoT") will require an expanded wireless infrastructure footprint to power key machine-to-machine ("M2M") connections. M2M traffic is predicted to grow 49-fold from 2014 to 2019[13] and enable innovative applications like mobile health, industrial and agricultural automation, utility and environmental monitoring, and inventory tracking and logistics. Particularly in Nebraska, a state with nearly 50,000 farms and where agriculture contributes $23 billion annually to the state's economy,[14] increased availability of M2M connections can help farmers track crop data, increase efficiencies and crop yield, and remain competitive.[15] M2M connections will also support more consumer-focused wearable technology—including watches, glasses, fitness trackers, and the like; analysts estimate wearable device shipments to reach 750 million units by 2020.[16] Access to cloud-based services, smart homes, and other IoT applications requires an always-on, always-present connection. As these devices come to market, wireless providers will continue to invest in expanding wireless capacity to support these additional connections.

Importantly, wireless services play a crucial public safety role. Because more than 70% of all emergency calls are placed with a wireless device,[17] wireless capacity and coverage is essential to ensuring access to public safety agencies wherever citizens are, whenever they need

[13] VNI Mobile Forecast Highlights, 2014 – 2019, CISCO, http://www.cisco.com/assets/sol/sp/vni/forecast_highlights_mobile/index.html (select "Filter by Country," select "United States," then select "Potential M2M Connections").

[14] *See* Nebraska Agriculture Fact Card (February 2015), *available at* http://www.nda.nebraska.gov/facts.pdf.

[15] *See* Sarah Gonzalez, *John Deere Makes an Economic Case for Rural Broadband Expansion*, AGRIPULSE (Oct. 9, 2014), *available at* http://www.pcia.com/pcia-press-releases/670-john-deere-makes-an-economic-case-for-rural-broadband-expansion.

[16] Press Release, Tractica, Cumulative Wearable Device Shipments to Surpass 750 Million Units by 2020 (Jun. 22, 2015), *available at* https://www.tractica.com/newsroom/press-releases/cumulative-wearable-device-shipments-to-surpass-750-million-units-by-2020.

[17] FCC.gov, *Guide: Wireless 911 Services*, http://www.fcc.gov/guides/wireless-911-services.

it. By encouraging increased wireless coverage, Nebraska will ensure citizens and first responders have access to crucial public safety communications.

Moreover, investment in wireless infrastructure yields dividends for Nebraska's economy and United States economy as a whole, spurring jobs and economic growth and enabling innovation in burgeoning sectors, like the application economy, and the entire technology sector. A PCIA-commissioned study indicates projected wireless infrastructure investment of $34 to 36 billion per year through 2017 would yield $1.2 trillion in economic development and 1.3 million net new jobs.[18] Another analyst report estimates that mobile's contribution to United States gross domestic product will reach 5% by 2020.[19] Investment in wireless infrastructure powers not only numerous direct effects—better, faster wireless service and additional telecommunications jobs—but also propels other positive, indirect effects, such as improving efficiency and enhancing productivity of existing businesses and enabling new businesses to provide novel, innovative services.[20]

Nebraska will safeguard its competitiveness in an increasingly tech-savvy world, foster increased wireless capacity and coverage for now and the future, and reap the benefits of all the aforementioned innovative applications and services by encouraging rapid deployment of wireless facilities.

## III. At the outset, the Commission should promote revisions that are technology neutral and alleviate burdens for all telecommunications service providers.

[18] ALAN PEARCE ET AL., WIRELESS BROADBAND INFRASTRUCTURE: A CATALYST FOR GDP AND JOB GROWTH 2013-2017 (Sept. 2013), *available at* http://www.pcia.com/images/IAE_Infrastructure_and_Economy2.PDF ("PEARCE STUDY").

[19] JULIO BEZERRA ET AL., THE MOBILE REVOLUTION: HOW MOBILE TECHNOLOGIES DRIVE A TRILLION-DOLLAR IMPACT CH. 3 (BCG PERSPECTIVES 2015), *available at* https://www.bcgperspectives.com/content/articles/telecommunications_technology_business_transformation_mobile_revolution/?chapter=3#chapter3_section2.

[20] *See* PEARCE STUDY at 2.

As an initial matter, the Commission should ensure any efforts to streamline broadband deployment are considered in broad context and in a technology-neutral fashion. In the order opening this docket, the Commission states that the proceeding:

> is designed to improve government policies for access to rights of way so that federal funding specifically earmarked for the efficient deployment of broadband in Nebraska by those carriers receiving support.[21]

While reducing deployment barriers for telecommunications providers receiving federal support is a laudable goal, the Commission should ensure that its policies apply to all telecommunications providers and areas of the state, not just those providers or areas targeted to receive universal service support. Moreover, policy improvements to reduce barriers must be considered in a technology-neutral fashion, taking into account both wireless *and* wireline facilities. Broadband deployment can take on many forms as technology improves and new deployments become available; deployments can also be tailored to suit regional characteristics or terrain. As such, technology-neutral improvements to the siting process will ensure Nebraskan businesses and consumers have diverse and competitive choices to suit their individual broadband needs.

## IV. The Commission should encourage policies that keep pace with current federal legislative and regulatory policy initiatives to facilitate the expansion of broadband in Nebraska.

PCIA applauds the Commission's efforts to track both federal legislation and policy initiatives and recommends that the PSC continue this trajectory to further increase broadband availability in Nebraska. The Commission should encourage the implementation of policy initiatives that foster non-discriminatory practices and enhance competition so that broadband may continue to flourish in the state. Pro-competitive practices can ensure a level playing field

[21] *Order* at 1.

for new and existing telecommunications providers, and ensure reasonable rates, terms, and conditions regardless of how the service is provided. As stated above, reducing obstacles to broadband deployment should be considered in a broad context and should remain technology neutral. The Commission should support and facilitate policies that promote competitive broadband infrastructure deployment across the market.

One challenge faced by PCIA members is navigating the variances in municipal, county, and state regulation, which makes it difficult to deploy broadband quickly and efficiently. Fulfilling the myriad of requirements imposed by each entity is difficult, at best. The Commission should focus on establishing consistency with Telecommunications Act Section 253, which provides that neither a local regulation nor a local legal requirement may have the effect of prohibiting the ability of any entity to provide telecommunications service.[22] Further, it provides that all regulation of telecommunications services stemming from local government authority should be provided on a "competitively neutral and nondiscriminatory basis."[23] Moreover, if the Federal Communications Commission ("FCC") determines that a state or local entity has violated this section of the code, the FCC will preempt the enforcement of the local regulation.[24] Despite the clarity of both Congress and the FCC on this subject, piecemeal requirements imposed by local governments can have the effect of significantly slowing the deployment of broadband. The Commission should support the implementation of procedures to streamline these processes so that both providers and municipalities are aware of the requirements with which they must comply and providers are able to deploy more rapidly.

[22] *See* 47 U.S.C. § 253(a) ("No State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service").

[23] *See* 47 U.S.C. § 253(c).

[24] *See* 47 U.S.C. § 253(d).

The Commission can also look to recent guidance from the Broadband Opportunity Council ("BOC"), a coalition made up of 25 federal agencies established to explore ways to remove unnecessary regulatory and policy barriers to broadband access and adoption, including at the state and local level. The BOC recognizes the obstacles that impede deployment and focuses on streamlining the application and siting process.[25] In the Broadband Opportunity Council Report, released in August 2015, the BOC underscored a commitment to "streamlining the applications for programs and broadband permitting processes to support broadband deployment and foster deployment."[26] The BOC determined that streamlining the application process for telecommunications facilities was one of the ways to create more efficiency in broadband deployment.[27] The PSC should also endorse new procedures that foster the expeditious review of applications. This will eliminate obstacles and unnecessary delays associated with the deployment of broadband.

## V. The Commission should support further action by the Nebraska Legislature to streamline broadband infrastructure deployment.

PCIA encourages the Commission to recommend further action to the Nebraska Legislature with respect to streamlining deployment of wireless facilities. The Commission should recommend that the legislature restructure the laws concerning rights-of-way agreements to make these regulations more uniform across various jurisdictions. Currently, providers are challenged with divergent and unclear requirements from municipal, county, and state regimes. Satisfying these varying requirements makes the process unwieldy and costly. Without remedy,

[25] *See* BROADBAND OPPORTUNITY COUNCIL REPORT at 5-6.

[26] *See* U.S. DEP'T OF AGRIC. AND U.S. DEP'T OF COMMERCE, BROADBAND OPPORTUNITY COUNCIL REPORT AND RECOMMENDATIONS 10 (2015), *available at* https://www.whitehouse.gov/sites/default/files/broadband_opportunity_council_report_final.pdf ("BROADBAND OPPORTUNITY COUNCIL REPORT")

[27] BROADBAND OPPORTUNITY COUNCIL REPORT at 3 (stating that one of the goals of the Broadband Opportunity Council is to "streamline the applications for programs and broadband permitting processes to support broadband deployment and foster competition").

these requirements burden telecommunications providers, resulting in the inefficient and slowed deployment of broadband.

The Commission should support legislation that streamlines the siting application process, and includes established timeframes and clear requirements for providers. Uniformity of this process will reduce the time and cost involved with complying with multifarious mandates of various entities. This collaborative approach could help to foster broadband deployment and ensure that the laws in place stimulate, rather than inhibit broadband deployment. In the past few years, many states have taken steps to promote a uniform approach to siting throughout the state by imposing certain limits on application requirements, including Iowa, Missouri, and Indiana.[28] Other states have endeavored to improve upon existing federal timeframes for siting application review, including California, which recently enacted a "deemed approved" remedy for local inaction on a siting application.[29] This state-law remedy provides an incentive to ensure applications to install facilities are approved or denied within a timely fashion.[30] Nebraska can look to those states that have enacted uniform siting processes that encourage timely approval so that providers may keep pace with deployment and ensure consumers have the services they need.

[28] IOWA CODE § 8.C (2016); MO. REV. STAT. §§ 67.5090 - 67.5103 (2016); IND. CODE § 8-1-32.3 (2016).
[29] *See* CAL. GOV'T CODE § 65964.1 (2016).
[30] *See id.*

## VI. Conclusion

PCIA commends the Commission for seeking ways to accelerate broadband deployment in Nebraska and for continuing to maintain consistency with federal legislation and initiatives. PCIA submits that streamlining the path and processes by recommending uniformity in laws concerning deployment to the Nebraska Legislature will eliminate some of the barriers to deployment currently faced by providers in the state.

Respectfully submitted,

/s/ D. Van Fleet Bloys
D. Van Fleet Bloys
Senior Government Affairs Counsel

D. Zachary Champ
Director, Government Affairs

Sade Oshinubi
Government Affairs Counsel

**PCIA – The Wireless Infrastructure Association**
500 Montgomery Street, Suite 500
Alexandria, VA 22314
(703) 739-0300

January 20, 2016